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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,426	09/22/2003	Shigeki Mori	03500.017620.	6515

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FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER	
LUONG, ALAN H	
ART UNIT	PAPER NUMBER
2623	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/665,426	MORI ET AL.	
	Examiner	Art Unit	
	ALAN LUONG	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 July 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 03, 2008, has been entered.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims **1-3, 5-7, 11 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiba (US Patent No. 6,604,215 hereinafter Chiba); in view of Takashi et al. (JP 2002-0844471 hereinafter Takashi), further in view of Alexandre et al. (US Patent No. 6,654,416 hereinafter Alexandre).

Regarding to claim 1: Fig. 1 of Chiba illustrates an integrated receiver decoder as **a receiving apparatus** (**see Chiba, col. 3 lines 52-54**) comprising:

Antenna [2] as **reception means for receiving data on a stream broadcast**

via a network(defined in col. 1 lines 15-25); (**see Chiba, col.3 lines 56-59 and col.4 lines 35-45**);

a buffer memory (53 of Fig. 1) which is capable of storing a predetermined amount of the received data on a stream broadcast; (receiver, when receiving a multichannel digital satellite broadcast, a demultiplexer first detects section data and the detected section data are temporarily stored in a buffer memory connected to the demultiplexer; **see Chiba, col.1 lines 46-51 and col.4 lines 48-50**)

Chiba also teaches data processing means (The microcomputer 4 controls the operation of the whole IRD; see Fig. 1 for processing the data on a stream broadcast stored on the memory (The FEC decoder 33 subjects signal supplied the QPSK demodulator 32 to FEC processing to generate a transport stream, and delivers it to the transport section 5. It also generates BER data, and delivers them to the microcomputer 4; **see Chiba, Fig. 1 col. 3 line 67 to col. 4 line 5**) to generate video data for the stream broadcast; (The EPG processor 61 in the MPEG decoding section 6 generates video data for on-screen displaying (OSD) of an EPG screen or the like from EPG data in compliance with a command from the microcomputer 4; **see Chiba Fig. 1, col. 4 lines 20--28)**

video output means for outputting the video data to a display apparatus; (The EPG processor 61 in the MPEG decoding section 6 generates video data for on-screen displaying (OSD) of an EPG screen or the like from EPG data in compliance with a command from the microcomputer 4, and delivers them to an NTSC encoder 64. The

video decoder 62 decodes the inputted MPEG data, and delivers the decoded data to the NTSC encoder 64. The NTSC encoder 64 converts the video data to be inputted to NTSC video signals, and outputs them to an external monitor (not shown); **see Chiba, col. 4 lines 20-28 and 64 of Fig. 1**).

detection means, in form of a FEC decoder (please see 33 of Fig. 1), for detecting interruption point data indicating a position where reproduction of the stream broadcast should be interrupted out of the received data on a stream broadcast (when error correction becomes impossible in the FEC decoder and the pictures no longer be displayed; **see Chiba, col. 2 lines 23-39 also Fig. 6C and col. 5 lines 7-19**), wherein the interruption point data are incorporated in the data on a stream broadcast; (In the multichannel digital satellite broadcast receiver described above, since the probability of error occurrence is one per 10,000 bits when BER is 10.sup.-4 for example, 600 errors per second in video data, 25 to 26 errors per second in audio data and one error per second in section data are likely to occur. Accordingly, even if the reception of video and audio data is impossible (error correction cannot be performed), the reception of section data may be possible to some extent (the error correction can be performed); **see Chiba, col.1 line 40 to col. 2 line 6**).

However, Chiba is silent to "control means for (a) monitoring abnormality of communication based upon a stored data amount of the memory, and (b) when the abnormality of the communication is detected, controlling the data processing means and the video output means to continue the output of the video data from a position at which the abnormality is detected to a position instructed in the interruption point data

detected by the detection means, so as to display on the display apparatus a video image based on the video data, and stop the output of the video data at the position instructed in the interruption point data.

In an analogous art directed toward a similar problem namely improving the results from control means for monitoring abnormality of communication based upon a stored data amount of the memory. Drawing 3 of Takashi illustrates a receiver section includes **control means [37]** receives control line [C21, C22 and C23] from detection means [33, 32 and 31], respectively **for (a) monitoring abnormality of communication** control line [C24] to determine input to sw [34] which changes image [D5] output from detection means [31] and [35] which turns ON when memorizes [D5] and OFF , memory [36] is updated **based upon a stored data amount of the memory** [36] (Takashi, ¶0022-¶0023).

when control line [C24] determines **the abnormality of the communication is detected** at any at least blocks [31], [32] and [33]**, controlling the data processing means** [37] controls sw [34] outputs [D7] as a video output means **and the video output means to continue the output of the video data** [D9] which is memorized in memory [36] from **a position sw [34] at which the abnormality is detected to a position [**32] by line [C22] **instructed** output voice [D6] is memorized in memory [36] at the same time with [D5],**in the interruption point** sw [35] OFF and receives line [C24]**, data detected by the detection means** [31] are no longer supplied to memory [36] then the stored data amount of the memory [36] are not updated. (Takashi, ¶0024-¶0026). Therefore, it would have been obvious to a person with ordinary skill in the art at the time of the invention was made to modify a receiving apparatus of Chiba with a

control means for monitoring abnormality of communication as taught by Takashi, in order to prevent the output of the disordered decoding image is displayed with the desired image from user, giving a user displeasure is lost.

However, Chiba and Takashi explicitly fail to teach detecting scene partitions of a program on the stream broadcast at the interruption point data indicating a position where are incorporated in the data on a stream broadcast relating to scene partitions of a program.

In an analogous art directed toward a similar problem namely improving the results from detecting scene partitions of a program on the stream broadcast. Alexandre teaches detecting interruption point data indicating a position where are incorporated in the data on a stream broadcast relating to scene partitions of a program on the stream broadcast (a device for detecting scene change; see **Alexandre, col. 5 lines 23-62**); and processing a detection of a change of scene; (**Alexandre ,col. 6 lines 27-37** and see **Fig. 5 col. 16 lines 57-43**). Therefore, it would have been obvious to a person with ordinary skill in the art at the time of the invention was made to combine the detecting of scene change as taught by Alexandre with controlling for digital content reception of Chiba and Takashi; In order to control image quality when abnormality of communication between transmission and reception is detected.

Regarding to claim 2: Takashi also discloses that the control means also monitors abnormality of communication based upon a stored data amount of the

memory (see Claim 1 discussion) and a communication rate of the data on a stream broadcast by the reception means (Takashi, ¶0019)

Regarding to claim 3: In the receiving apparatus of Chiba, the control means (microprocessor 4; Fig. 1) further controls the data processing means (EPG processor 61; Fig. 1) and the video output means (NTSC Encoder 64; Fig. 1) to restart the output of the video data from the position instructed in the interruption point data in response to an amount of data of the data on a stream broadcast stored on the memory having reached a predetermined amount after stopping the output of the video data; if it decides the BER is not more than 10.sup.-10 (YES in Step S5) for example, it acquires section data (Step S6), when the C/N ratio is enhanced in the unlocked state and the BER comes down to 10.sup.-2 for example, it becomes possible for the QPSK modulator to perform demodulation, and the lock/unlock signal changes from unlock to lock (FIGS. 3D and 3E). However, acquisition of section data has not yet been done. Then, when the C/N ratio is further enhanced to 10.sup.-10 for example, section data are acquired. In this state, the FEC decoder 33 is enabled to perform error correction, and it becomes possible for pictures consisting of video data to be displayed; **see Fig. 2, col. 4 lines (5-67) and Fig. 3D to 3G; col.5 lines 7-51).**

Regarding to claim 5: Chiba further teaches that the detection means further detects restart point data indicating a restart point after stopping the video output out of the data on a stream broadcast (It is known that the operation to switch from locking and unlocking of the IRD and vice versa, as shown in this diagram, is given a hysteretic characteristic. The hysteretic characteristic is generated by the hysteresis generator 41

in the microcomputer 4. The preferable amount of the hysteresis is 2 to 3 decibels; **see Figs. 3B and 3F, col. 5 lines 52-58**), and controls the data processing means and the video output means to restart the output of the video data from a position instructed in the detected restart point data (control means for controlling the receiver so that, when the bit error rate signal has risen in level to a first value, the status signal that is outputted changes from indicating a state of possibility of reception to indicating a state of impossibility of reception; when the bit error rate signal has dropped in level to the first value, the status signal that is outputted changes from indicating a state of impossibility of reception to indicating a state of possibility of reception; **see col.6 lines 5-15 and col.6. lines 38-48).**

Regarding to claim 6: Drawing 3 of Takashi further discloses the control means controls the video output means to output predetermined video data instead of video data according to the data on a stream broadcast after stopping the output of the video data. (**See Takashi, para [0023], [0024] and [0025]**).

Regarding to claim 7: Takashi also teaches, in the case in which an amount of data of the data on a stream broadcast stored on the memory has reached a predetermined amount after stopping the output of the video data (**Takashi, para.[0008] and para.[0009]),** the control means further controls the data processing means and the video output means to restart the output of the video data from a position instructed in the interruption point data after the predetermined video data ends (**Takashi , para.[0010]).**

Regarding to claim 11: With respect to the method claim 11, as discussed above since the receiving apparatus disclosed by Chiba, Takashi and Alexandre anticipate every structural element and its function required by the apparatus claim 1 and since this method claim 11 merely repeats the functions of claim 1, claim 11 must also be anticipated by Chiba, Takashi and Alexandre (**please see discussion of claim 1 and** display a video image based on the video data, and stop the output of the video data at the position instructed in the interruption point data, **see** Takashi, ¶0024)

Regarding to claim 12. The scope of claim 12 is substantially the same or slightly broader than that of the claim 1 since it requires every structural element of claim 1. Thus, claim 12 is also anticipated by Chiba for the same reasons provided in the rejection of claim 1.

1. Claims 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiba, Takashi and Alexandre; in view of US Patent 6,452,943 issued to **Furuya.**

Regarding to claim 4: Chiba, Takashi and Alexandre teach the control of data processing means and the video output means to restart the output of the video data, but fail to address the estimate time when the output of the video data can be restarted based upon the amount of data, which is stored on the buffer memory.

In an analogous art directed toward a similar problem namely improving the results from address the estimate time when the output of the video data can be restarted based upon the amount of data. Furuya teaches a receiving apparatus wherein the amount of expandable data in the reception buffer memory and estimated time when

the output of the video data can be restarted based upon the amount of data, which is stored on the buffer memory; (**see Furuya, col.19 line 10 to col.20 line16 and Fig. 20**).

Therefore, it would have been obvious to an ordinary skill in the art at the time of the invention was made to modify Chiba, Takashi and Alexandre's receiving apparatus with the estimate time when the output of the video data can be restarted based upon the amount of data, which is stored on the buffer memory as taught by Furuya, in order to prevent the interruption of the video reproduction image by control the time difference between the transmitting and receiving state.

Regarding to claim 9: Chiba further discloses that the control means also selects the two kinds of levels of the interruption point data according to a type of a communication rate of the connected network (col.6 lines 38-48); however, neither Chiba, Takashi nor Alexandre discloses two kinds of levels of the detecting means at interruption point data out of the data on a stream broadcast.

Furuya discloses the data receiving apparatus, wherein the detection means further detects two kinds of levels of the interruption point data out of the data on a stream broadcast (**Furuya**, **col.21 lines 11-13 and col.22 lines 52-54**). Therefore, it would have been obvious to an ordinary skill in the art at the time of the invention was made to provide for Chiba and Alexandre's receiver system with the detection means which detects two kind of detecting levels as taught by Furuya in order to allow the system to control video reproduction cycle.

6. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over Chiba, Takashi and Alexandre; in view of Masayuki (JP 2001-359073 hereinafter Masayuki).

Regarding to claim 8: Neither Chiba, Takashi nor Alexandre disclose wherein the detection means further detects location information of a second distribution server, which is capable of distributing data on a stream broadcast at or after the interruption point, out of the data on a stream broadcast, and the control means controls the reception means to make connection to the second distribution server when abnormality of communication is detected.

In an analogous art directed toward a similar problem namely improving the results from detecting location information of a second distribution server. Masayuki discloses a program distribution server [13] inside of a distribution site 1 (see Masayuki, Drawings 1 and 4; block 13 and 1) as a second distribution server, which is capable of distributing data on a stream broadcast at or after the interruption point (**Masayuki**, **para.[0054] lines 2-4)** , and the control means controls the reception means to make connection to the second distribution server (**see** Masayuki, **para. [0041], [0042], and [0043]**) when abnormality of communication is detected. Therefore, it would have been obvious to an ordinary skill in the art at the time of the invention was made to modify Chiba and Alexandre's receiving apparatus with the second distribution server as taught by Masayuki; in order to distribute data on a stream broadcast at or after the interruption point.

7. **Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over Chiba, Takashi and Alexandre , in view of US Patent Publication US 2003/0066078 published to Bjorgan et al.. (hereinafter Bjorgan)

Regarding to claim 10: As discussed above, Chiba, Takashi and Alexandre disclose a receiver apparatus substantially comprising every element of claim 1; however, Chiba, Takashi and Alexandre fail to disclose the data which designates a position where the stream broadcast should be interrupted after a CM ends and before a program following the CM starts, which are included in the data on a stream broadcast.

In an analogous art directed toward a similar problem namely improving the results from a position where the stream broadcast should be interrupted after a CM ends and before a program following the CM starts. Bjorgan discloses the commercial detector interface to insert a CM in the primary stream broadcast (**see Bjorgan para.[0041], [0042] and para.[0078] lines 32-41)**. Therefore, it would have been obvious to an ordinary skill in the art at the time of the invention was made to insert a CM in the data on a stream broadcast as taught by Bjorgan in Chiba and Alexandre's system, in order to prevent the interruption of video reproduction when the abnormalities are detected.

Response to Arguments

Applicant's arguments with respect to claims 1, 11 and 12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALAN LUONG whose telephone number is (571)270-5091. The examiner can normally be reached on Mon.-Thurs., 8:00am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Beliveau can be reached on (571) 272-7343. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. L./
Examiner, Art Unit 2623
Date 08/11/2008

/Scott Beliveau/
Supervisory Patent Examiner, Art Unit 2623